U.S. Department of the Interior
Bureau of Land Management
White River Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2005-132-EA

CASEFILE/PROJECT NUMBER (optional): COC 058704 (13-9), COC 66378 (6-14), COC 058705 (23-15, 27-9, 27-16)

PROJECT NAME: 5 APD's

LEGAL DESCRIPTION: T. 1S, R. 104W,
sec. 13 NESE, Weaver ridge 13-9,
T. 2S, R. 103W,
sec. 6, SESW, Hells Hole 6-14,
T. 1S, R. 104W,
sec. 23, SWSE, Weaver Ridge 23-15,
T. 1S, R. 104W,
sec. 27, NESE, Weaver Ridge 27-9 and 27-16

APPLICANT: Robert L. Bayless, Producer LLC

ISSUES AND CONCERNS (optional): None

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action: Applicant proposes to construct 5,200' X 50' of new well access roads and also proposes to construct 4 new well locations with five new wells. There will be no new disturbance for proposed pipeline because the proposed pipeline corridor will follow the planned access road. The gas gathering line will be owned and operated by Canyon Gas Resources, LLC. The table below identifies these wells and the proposed disturbance for each action.

Well Name	New Access Road (Ft)	Acres Disturbed	Location size (Ft)	Acres Disturbed (Total)
Weaver Ridge 13-9	50 X 1606	1.84	300 X 175	3.05
Hells Hole 6-14	50 X 2148	2.47	300 X 175	3.68
Weaver Ridge 23-15	50 X 1446	1.66	300 X 175	2.87
Weaver Ridge 27-9 / 27-16	Existing	0	350 X 260	2.09
			Total	11.69

Total disturbance for this project will be 11.7 acres.

The borrow ditches for the roads will be backsloped 3:1 or shallower and maximum grades will be 2% for 500'. No major road cuts are necessary and surfacing material will consist of native material from the road crown. The topsoil will be windrowed during construction and placed in the borrow ditch backslope upon road completion. During reclamation, the backslope of the borrow ditch will be revegetated.

Site preparation for production will be done with standard excavation equipment using native materials. Additional surface material will be obtained from a commercial source or an approved borrow area. Production facilities may vary according to actual reservoir discovered and will be engineered upon completion of well tests. If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1 1/2 times the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. The color Juniper Green was specified on the onsite to paint the above ground permanent structures. Any necessary pits will be fenced on all sides to prevent any wildlife and livestock entry and any production pit will be netted bird tight.

Waste will be contained in a portable trash cage which will be totally enclosed with small mesh wire. The cage and its contents will be transported to and dumped at a CDPHE approved Sanitary Landfill. Flammable waste will be disposed of by hauling to an appropriate disposal site. Drilling fluid in pit will be allowed to evaporate then the drill cuttings and pit will be buried. Produced fluids other than water will be contained in storage tanks during completion and testing. Sewage disposal facilities will be provided and will not be buried on location or put into a borehole.

Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring all cut and fill slopes and distributing the stock piled topsoil back over the disturbed area. The site will be revegetated using a certified seed mix as prescribed by the BLM. Seed tags will be submitted to the Area Manager within 30 days of seeding. If necessary, a Colorado Department of Agriculture certified weed applicator will be used for weed control.

No Action Alternative: In the no-action alternative the wells would not be permitted; there would be no new disturbance.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR THE ACTION: To respond to the request by applicant to exercise lease rights and develop hydrocarbon reserves.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Decision Number/Page: Pages 2-49 thru 2-52

Decision Language: "To make public lands available for the siting of public and private facilities through the issuance of applicable land use authorizations, in a manner that provides for reasonable protection of other resource values."

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The proposed actions are not located within a nineteen mile radius of any special designation air sheds or non-attainment areas. A PSD Class II Air-shed (Dinosaur National Monument) exists approximately 19.2 miles north of the proposed action. Construction of well pads and access roads will have very minimal affect on air quality within Dinosaur National Monument. Temporary affects on local air quality in the Gilsonite Ridge area will be expected.

Environmental Consequences of the Proposed Action: Temporary reductions in air quality will occur in response to dry periods when gusty winds and increased human disturbance (traffic) will temporarily increase fugitive dust levels. Overall, construction operations should not greatly compromise National Ambient Air Quality Standards (NAAQS) for particulate mater which calls for a maximum 24-hour average to be less than or equal to 150 $\mu g/m^3$.

Environmental Consequences of the No Action Alternative: None

Mitigation: The operator will be responsible for complying with all local, state, and federal air quality regulations and provide documentation to the BLM that they have done so.

Revegetate surfaces disturbed during construction. Stockpiled soils must be covered and adequate ground cover must be applied (e.g. woody debris) to minimize surface exposure to eolian processes.

Dust abatement (spreading water) will be required during dry periods.

CULTURAL RESOURCES

Affected Environment: Hells Hole 6-14 Well pad and access: The proposed well pad and access route have been inventoried at the Class III (100% pedestrian) level (Conner and Davenport 2005, Compliance Dated 4/15/2005) with one cultural resource site located along the proposed access route.

Weaver Ridge 13-9 Well pad and access; Weaver Ridge 23-15 well pad and access road; Weaver Ridge 27-9 Well pad and access road; and Weaver Ridge 27-16 well pad and access road: have been inventoried at the Class III (100% pedestrian) level (Conner and Davenport 2005, Compliance Dated 4/25/2005) with no new cultural resources identified in the inventoried area.

Environmental Consequences of the Proposed Action: Hells Hole 6-14 Well pad and access road: there is a potential to impact one known cultural resource site (5RB 1390) if mitigation procedures are not strictly adhered to.

Weaver Ridge 13-9 Well pad and access; Weaver Ridge 23-15 well pad and access road; Weaver Ridge 27-9 Well pad and access road; and Weaver Ridge 27-16 well pad and access road: there will be no new impacts to known cultural resources from this well pad and access road.

Environmental Consequences of the No Action Alternative: There would be no new impacts to cultural resources under the No Action Alternative.

Mitigation: Hells Hole well 6-14 and access road: Site 5RB 1390 must be avoided. All new construction must remain within previous disturbance. Construction outside of previous disturbance must be monitored in the vicinity of the site.

For all wells and access roads: The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to

confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

INVASIVE, NON-NATIVE SPECIES/RECLAMATION: (This includes vegetation information related to Public Land Health Standard 3.)

Affected Environment: The proposed project is within the pinyon/juniper woodland vegetation association. The juniper woodland soils in this area are shallow and shale derived. Past reclamation efforts have included non-native species, which have performed well in soil stabilization.

The two noxious weeds found in this area are halogeton and cheatgrass. Both of these species are found throughout the area. Halogeton has the ability to rapidly colonize disturbed areas, but is easily controlled by successful revegetation. Cheatgrass is found throughout the area in all of the plant communities. This specie can hinder reclamation because of its highly competitive nature. Non-native species have been shown to out-compete cheatgrass. Noxious weeds, such as knapweeds, transported on site by construction equipment and support vehicles would also be of concern.

Impact of Proposed Action: Using the proposed non-native seed mix would adequately stabilize soils. These species have not been shown to move off site or to interbreed with adjacent plant species.

With prompt control of any noxious weeds that occur on the project area there would not be any adverse impacts to the adjacent plant communities. Prompt reclamation would prevent cheatgrass and halogeton from establishing.

*Impact of No Action Alternative***:** There would be no impacts.

Mitigation: In accordance with Condition of Approval #179 from Appendix B of the White River ROD/RMP, application of herbicides must be under field supervision of an EPA-

certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

MIGRATORY BIRDS

Affected Environment: The project area consists primarily of stunted, open-canopied juniper-dominated woodlands intermixed with mixed Wyoming big sagebrush-shadscale shrublands. There are a number of migratory birds that fulfill nesting functions in these types from May through mid-July, including several species identified as having higher conservation interest by the Rocky Mountain Bird Observatory, Partners in Flight program (i.e., gray flycatcher, juniper titmouse, black-throated gray warbler). These and more common and generalized species associated with these habitats (e.g., house finch, chipping sparrow, lark sparrow, vesper sparrow, and spotted towhee) are widely represented at appropriate densities in extensive suitable habitats throughout the Resource Area.

Environmental Consequences of the Proposed Action: Construction and drilling/ completion activities associated with these pads are scheduled to commence in mid-June to early July 2005 and be completed by September 2005. Based on this schedule, there would be potential to disrupt the nesting activities of migratory birds on 1 to 2 pads (2-7 acres of direct habitat involvement). Based on woodland habitats that would support the highest diversity and density of nesting species, and the fact that construction would occur late in the nesting sequence, it is unlikely that more than 4 nest attempts by birds of higher conservation interest would be influenced by construction or drilling operations (i.e., virtually no high interest birds involved with burned herbaceous-dominated habitats).

The development of reserve pits in the project area may be expected to attract waterfowl and other migratory birds for purposes of resting, foraging, or as a source of free water. It has recently been brought to this Field Office's attention that migratory waterfowl (i.e., teal and gadwall) have contacted oil-based drilling fluids stored in reserve pits during or after completion operations and are suffering mortality in violation of the Migratory Bird Treaty Act. The extent and nature of the problem is not well defined, but is being actively investigated by the federal agencies and the companies. Until the vectors of mortality are better understood, management measures must be conservative and relegated to preventing bird contact with produced water and drilling and completion fluids that may pose a problem (e.g., acute or chronic toxicity, compromised insulation).

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have potential to disrupt the breeding activities of migratory birds or expose birds to fluids that pose a mortality risk.

Mitigation: It will be the responsibility of the operator to eliminate migratory bird access to reserve pits that store or are expected to store fluids that pose a risk to these birds (e.g., waterfowl, wading birds, raptors, and songbirds) during drilling and completion activities and until such pits are reclaimed. Exclusion methods may include netting, the use of "bird-balls", or other alternative methods that effectively eliminate migratory bird access to pit contents and

meet BLM-approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to eliminate migratory bird use two weeks prior to when drilling activities are expected to begin. The BLM approved method will be applied within 24 hours after drilling activities have begun. All lethal and non-lethal events that involve migratory birds will be reported to a White River Field Office Petroleum Engineer Technician immediately.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: Surface Water: All wells and access roads are situated in stream segment 22 of the White River Basin. Wells 27-16, 27-9, 6-14 and accompanying access roads are all located within the Hells Hole Catchment area which is a tributary to the White River. Well 23-15 can be found in the Weaver Canyon Catchment area while well 13-9 is located in the Cottonwood Creek watershed (both tributaries to the White River). It should be noted that Cottonwood Creek is listed in the White River Resource Area RMP as a “fragile” watershed.

A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. The State has classified stream segment 22 of the White River Basin as "Use Protected" and further designated as beneficial for the following uses: Warm Aquatic Life 2, Recreation 1b, and Agriculture. The antidegredation review requirements in the Antidegredation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. For this reach, minimum standards for four parameters have been listed. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 325/100 ml, and 205/100 ml E. coli.

Ground Water: During the drilling process it is likely that deep ground water aquifers be encountered. Local ground water may also be affected if contaminants are allowed to infiltrate the soils.

Environmental Consequences of the Proposed Action: Construction of access roads and well pads will result in temporary exposure of soils to erosional processes. Removal of ground cover would likely increase erosive potential due to runoff and raindrop impact during storm events. Increased traffic on access roads may lead to rut development causing water to be channelized down the roadway. As a result, erosive head cutting will develop at locations water exits the roadway.

Elevated water tables during wet periods (spring run-off) may result in ponding on well pad 23-15 due to its location near the mouth of a substantial draw. If ponding occurs, ground water being discharged onto the well pad will likely contact environmentally unfriendly substances leaked or spilled on the pad. Contaminated water from the well pad will likely deteriorate water quality down gradient the pad. Local ground water may also be contaminated if a spill results or pit contents are allowed to infiltrate soils.

Environmental Consequences of the No Action Alternative: None

Mitigation: The operator will be responsible for complying with all local, state, and federal water quality regulations as well as provide documentation to the BLM that they have done so. Furthermore, "Gold Book" surface operating standards for oil and gas exploration and development must be implemented in construction of well pads and access roads.

To mitigate surface erosion due to removal of ground cover at the well pad, it is recommended stockpiled soils be covered and silt fences be used on down gradient sides. It is also recommended that upon reclamation flow deflectors and sediment traps (woody debris) be redistributed over the area along with Native Seed Mix #5.

Native Seed Mix #5		
Species (Variety)	Lbs. PLS per Acre	Ecological Sites
Basin Wildrye (Magnar) Western wheatgrass (Rosanna, Arriba) Bluebunch wheatgrass (Secar) Thickspike wheatgrass (Critana) Fourwing saltbush (Wytana) Alternates: Utah sweetvetch, globemallow	2 3 1 2 1	Foothill Swale, Sandy Swale, Swale Meadow

To mitigate contamination of local ground water, environmentally unfriendly substances (e.g. diesel) must not be allowed to contact soils. The use of impermeable matting under equipment is suggested to intercept such contaminants prior to contacting soils. Furthermore, all pits must be lined and all wastes associated with construction and drilling will be properly treated and disposed of. Finally, aquifers beneficial for human consumption and livestock encountered during the drilling process must be properly sealed to reduce potential for contamination.

Finding on the Public Land Health Standard for water quality: Water quality in stream segment 22 currently meets water quality standards set by the state. Construction of the proposed access roads and well pads will increase sediment loads to stream segment 22 adversely impacting water quality, riparian communities and wildlife downstream. However, if proper mitigation measures are followed, adverse environmental impacts can be minimized and the standards would continue to be met.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No ACEC's, flood plains, prime and unique farmlands, riparian or wetland communities, Wilderness, or Wild and Scenic Rivers, or threatened, endangered or sensitive plants and animals exist within the area affected by the proposed action. For threatened, endangered and sensitive species the Public Land Health Standards are not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status species. Similarly, the proposed and no-action alternatives would have no conceivable influence on channel systems that support riparian or wetland communities. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: The following data is a product of an order III soil survey conducted by the NRCS. The accompanying table highlights important soil characteristics. A complete summary of this information can be found at the White River Field Office.

CSU-1 "fragile" soils have been mapped throughout a significant portion of the proposed work area. However, after observing a topographic map it was concluded that no surface disturbance will occur on slopes exceeding 35 %. Thus, controlled surface use stipulations do not apply.

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
61	Patent loam	3-8%	Rolling Loam	<2	Medium	Moderate	>60
67	Rabbitex flaggy loam	10-65%	Pinyon-Juniper woodland	<2	Medium	Moderate to very high	40-60
73	Rentsac channery loam	5-50%	Pinyon-Juniper woodlands	<2	Rapid	Moderate to very high	10-20
74	Rentsac-Moyerson- Rock Outcrop complex	5-65%	PJ Woodlands /Clayey Slopes	<2	Medium	Moderate to very high	10-20
78	Rock Outcrop	50-	None		Very	Slight	0

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
		100%			high		
96	Veatch channery loam	12-50%	Loamy Slopes	<2	Medium	Moderate to very high	20-40

61-Patent loam (3 to 8 percent slopes) is a deep, well drained soil found on fans and toe slopes. It formed in alluvium, colluvium, and a thin mantle of eolian material. Areas are irregular in shape and are 20 to 200 acres in size. The native vegetation is mainly low shrubs and grasses. Typically, the surface layer is brown loam 3 inches thick. The next layer is brown loam 7 inches thick. The upper 14 inches of the underlying material is very pale brown loam, and the lower part to a depth of 60 inches or more is very pale brown very fine sandy loam. The soil is calcareous throughout, and it contains varying amounts of gypsum. Permeability of this Patent soil is moderate. Available water capacity is high. Effective rooting depth is 60 inches or more. Runoff is medium, and the hazard of water erosion is moderate. The potential plant community on this unit is mainly blue bunch wheatgrass, western wheatgrass, needle and thread, big sagebrush, Sandberg bluegrass, and Douglas rabbit brush.

67-Rabbitex flaggy loam (10 to 65 percent slopes) is a deep, well drained soil found on mountainsides. It formed in residuum and colluvium derived dominantly from sandstone. Slopes generally face north. Areas are irregular in shape and are 40 to 500 acres in size. The native vegetation is mainly pinyon and juniper with an understory of brush and grasses. Typically, as much as 2 percent of the surface is covered with stones. The surface layer is brown flaggy loam about 12 inches thick. The next layer is pale brown channery loam about 9 inches thick. The underlying material is channery loam 22 inches thick. Sandstone is at a depth of 43 inches. Depth to sandstone ranges from 40 to 60 inches. The soil is calcareous throughout. In some areas the surface layer is channery fine sandy loam or channery sandy loam. Permeability of the Rabbitex soil is moderate. Available water capacity is moderate. Effective rooting depth is 40 to 60 inches. Runoff is medium, and the hazard of water erosion is moderate to very high. The potential plant community on this unit is mainly pinyon and Utah juniper trees with an understory of serviceberry, mountain mahogany, mutton grass, and beardless wheatgrass. Smaller amounts of needle and thread, snowberry, and big sagebrush commonly are also present in the potential plant community.

73-Rentsac channery loam (5 to 50 percent slopes) is a shallow, well drained soil found on ridges, foothills, and side slopes. It formed in residuum derived dominantly from calcareous sandstone. Areas are elongated and are 200 to 5,000 acres. The native vegetation is mainly pinyon, juniper, brush, and grasses. Typically, the surface layer is grayish brown channery loam about 5 inches thick. The next layer is very channery loam about 4 inches thick. The underlying material is extremely flaggy light loam 7 inches thick. Hard sandstone is at a depth of 16 inches. Depth to sandstone ranges from 10 to 20 inches. Permeability of this Rentsac soil is moderately rapid. Available water capacity is very low. Effective rooting depth is 10 to 20 inches. Runoff is rapid, and the hazard of water erosion is moderate to very high. The potential plant community on this unit is mainly pinyon and Utah juniper with an understory of Indian rice grass, beardless wheatgrass, mountain mahogany, and prairie junegrass. Smaller amounts of big sagebrush, bitterbrush, and serviceberry commonly are also present in the potential plant community.

74-Rentsac-Moyerson-Rock outcrop complex (5 to 65 percent slopes) can be found on foothills and ridges. Areas are irregular in shape and are 160 to 5,000 acres in size. The native vegetation is mainly pinyon and juniper trees with an understory of shrubs and grasses. This unit is 40 percent Rentsac channery loam that has slopes of 5 to 50 percent, 25 percent Moyerson stony clay loam that has slopes of 15 to 65 percent, and 20 percent Rock outcrop that has slopes of 5 to 65 percent. The Moyerson soil is mainly in the lower lying areas of the unit. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used. The Rentsac soil is shallow and well drained. It formed in residuum derived dominantly from sandstone. Typically, the surface layer is grayish brown channery loam about 5 inches thick. The next layer is brown very channery loam about 4 inches thick. The underlying material is very pale brown extremely flaggy loam 7 inches thick. Sandstone is at a depth of 16 inches. Depth to sandstone ranges from 10 to 20 inches. In some areas the surface layer is quite variable in texture. Permeability of the Rentsac soil is moderately rapid. Available water capacity is very low. Effective rooting depth is 10 to 20 inches. Runoff is medium, and the hazard of water erosion is moderate to very high.

The Moyerson soil is shallow and well drained. It formed in residuum derived dominantly from shale. Typically, the surface layer is light gray stony clay loam about 2 inches thick. The next layer is gray clay loam about 8 inches thick. The underlying material is gray clay 7 inches thick. Shale is at a depth of 17 inches. Depth to shale ranges from 10 to 20 inches. In some areas the surface layer is silty clay loam, silty clay, light clay, or bouldery clay loam. Permeability of the Moyerson soil is slow. Available water capacity is low. Effective rooting depth is 10 to 20 inches. Runoff is medium to rapid, and the hazard of water erosion is very high.

Rock outcrop consists of ridge caps, ridge points, and long vertical bluffs 3 to 25 feet thick and 25 to 1,500 feet long. The potential plant community on the Rentsac soil is mainly pinyon and juniper trees with a sparse understory of Indian rice grass, beardless wheatgrass, mountain mahogany, big sagebrush, prairie junegrass, and bitterbrush. The potential plant community on the Moyerson soil is mainly Salina wild rye, shadscale, Sandberg bluegrass, Indian rice grass, galleta, and bottlebrush squirrel tail. The production of forage is limited by low precipitation, restricted rooting depth, and steepness of slope.

78-Rock outcrop is found on mountains, in canyons, on ridges, hills, and upland breaks. It consists of barren exposures of sandstone, hard shale, siltstone, or limestone. Slope is about 50 to 100 percent. Areas are irregular, rectangular, or elongated in shape and are 15 to 200 acres in size. This unit is 90 percent or more exposed bedrock with some soil material in the crevices and at the base of the slopes. Accumulations of boulder and stones are also common at the base of the slopes. Rock outcrop most commonly occurs as nearly vertical ledges and cliffs that are 3 to 50 feet high and 5 to 1,500 feet long.

96-Veatch channery loam (12 to 50 percent slopes) is a moderately deep, well drained soil found on mountainsides. It formed in colluvium derived dominantly from sedimentary rock. Areas are irregular in shape and are 20 to 750 acres in size. The native vegetation is mainly brush, shrubs, and grasses. Typically, the surface layer is dark brown channery loam 8 inches thick. The upper 5 inches of the subsoil is dark brown channery loam, and the lower 5 inches is brown channery

loam. The underlying material is very pale brown extremely channery light loam 14 inches thick. Sandstone is at a depth of 32 inches. In some areas the surface layer is channery fine sandy loam. Permeability of this Veatch soil is moderate. Available water capacity is moderate. Effective rooting depth is 20 to 40 inches. Runoff is medium, and the hazard of water erosion is moderate to very high. The potential plant community on this unit is mainly blue bunch wheatgrass, western wheatgrass, mutton grass, big sagebrush, mountain mahogany, and serviceberry. Smaller amounts of Indian rice grass, snowberry, needle and thread, and low rabbit brush commonly are also present in the potential plant community.

Environmental Consequences of the Proposed Action: Reductions in vegetation and ground cover will leave soils exposed to erosional processes. Inadequate drainage of roads and well pads will complicate existing erosional problems. Increased truck traffic will cause rutting to develop over portions of the roadway. Rut development will channelize surface water down the roadway accelerating erosion rates. Heavy truck traffic on the road way will also increase soil compaction resulting in erosive overland flows.

Due to the calcareous nature of soils within the project areas piping and mass wasting may occur do to the dissolution of calcium carbonate.

Environmental Consequences of the No Action Alternative: None

Mitigation: All road construction must strictly adhere to "Gold Book" surface operating standards for oil and gas exploration and development. Access roads will be designed to provide adequate cut-slope grade, and drains as needed to control surface runoff and keep soil losses to a minimum.

To mitigate surface erosion due to removal of ground cover on well pads and access roads, stockpiled soils shall be covered and silt fences will be used on down gradient sides. Upon reclamation flow deflectors and sediment traps (woody debris) must be redistributed over the area along with Native Seed Mix #5.

Heavy truck traffic must be eliminated during wet periods to reduce deterioration of the roadways and prevent rut development. Seasonal restrictions for heavy truck traffic must be implemented and enforced.

Complete reclamation will follow abandonment of well pads. Access roads and well pads will be recontoured and 100% of disturbed surfaces will be revegetated with Native Seed Mix #5.

Finding on the Public Land Health Standard for upland soils: Without proper construction/maintenance of access roads and well pads, the health of upland soils will be adversely impacted. Accelerated erosion will be a product of the loss of vegetation and ground cover combined with reduced permeability and infiltration rates due to soil compaction. However, following proper mitigation techniques adverse impacts on soil health can be mitigated and continue to be meet the Public Land Heath Standards.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The project area is primarily a pinyon/juniper type. The 23-15 well is contains primarily old growth pinyon/juniper with approximately an even mix of species. The 27-9 and 27-16 are also within an old growth pinyon /juniper association with the dominant species being Utah juniper. The 6-14 well is within a burned pinyon/juniper stand which was reseeded with primarily non-native species in the early 1980s. The non-native species are still present and Indian ricegrass has invaded the area and is common. The 13-9 well has the access road within the pinyon/juniper association that is dominated by old growth Utah juniper, with the access road on a hillside bunchgrass vegetation site. Predominate species include Salina wildrye, ephedra, shadscale, winterfat, Indian ricegrass, needle-and-thread grass and a variety of native forbs. Non-native cheatgrass is found throughout the area.

Environmental Consequences of the Proposed Action: Following reclamation these vegetation sites have relatively good success at establishment of perennial vegetation cover. The juniper woodland would establish cover suitable for soil retention within 3-5 years and initial establishment of junipers in 15-20 years. Development of a late seral community would take 150-200 years. The hillside bunchgrass site would develop into a mature community in 20-30 years.

Environmental Consequences of the No Action Alternative: There would be no impacts.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* The above described plant community meets the standards for plant health. This status will not change with the proposed action.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: The proposed locations are separated from warm-water aquatic communities supported by the lower White River in Utah by at least five miles of ephemeral channel.

Environmental Consequences of the Proposed Action: Separated by at least 5 miles of ephemeral channel, there is no reasonable likelihood that aquatic habitats associated with downstream perennial systems would be influenced by proposed well and road construction.

Environmental Consequences of the No Action Alternative: There would be no immediate action authorized that would have potential to affect wetland or riparian communities.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): Because there are no aquatic habitats or animals potentially

influenced by the proposed or no-action alternatives, a land health standard finding is not applicable. The proposed and no action alternatives would have no measurable influence on aquatic habitats associated with downstream systems.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The proposed 13-9, 23-15, and 27-16 locations are generally situated in stunted, open-canopied pinyon-juniper woodlands with minor inclusions of mixed Wyoming big sagebrush and shadscale saltbush parks. The 6-14 well is situated in the interior of a large wildfire along an existing, but long abandoned roadbed. During onsite inspections, access to the 13-9 was rerouted in two instances to avoid bisecting sagebrush parks (i.e., moved to edge of type). The 23-15 location was moved approximately 300 feet south to avoid drainage involvement and integrate the pad with the edge of a large existing burn. The 27-9/27-16 wells would be drilled from a single pad adjacent to an existing road.

All pad locations were inspected by BLM biologists for evidence of raptor nesting activity on 7 April 2005. These rather stunted, open-canopied and juniper dominated stands typically involve shaley substrates or poorly developed understories and contain few larger-diameter trees that provide spreading crowns preferred as raptor nest substrate. No evidence of past or recent raptor nest activity was found during on-site surveys.

The proposed wells are encompassed by general winter ranges of deer and elk. These ranges sustain big game use from November through early May. Although browse use in the project area indicates relatively short duration winter deer use, the burns surrounding the 23-15 and 6-14 locations have attracted substantial winter elk use. Current road densities are moderate (1.5-2.5 miles per square mile) in the project vicinity and generally meet the road density objectives established in the White River ROD/RMP (i.e., road densities of 3 miles/square mile on big game ranges, White River ROD/RMP, page 2-29).

Non-game wildlife using this area are typical and widely distributed in extensive like habitats across the Resource Area and northwest Colorado; there are no narrowly endemic or highly specialized species known to inhabit those lands potentially influenced by this action.

Environmental Consequences of the Proposed Action: These wells would be completed in the later summer and early fall months prior to big game occupation. Well maintenance and monitoring activities during the winter and early spring months would result in minor and temporary displacement of animals and disuse of local forage and cover resources by big game, particularly elk, but road restrictions on 2 access roads (about 0.7 mile) would substantially reduce the frequency and duration of disruptive activity associated with recreation use in the vicinity of these wells. Long term occupation of these lands and the reduction in the herbaceous and woody forage base for big game (about 12 acres) would be discountable at the landscape level. Similarly, the loss of forage and cover for non-game animals would be negligible.

Big game habitat disuse and elevated energy demands attending road proliferation and increasing off-road vehicle use received prominent attention in the White River ROD/RMP. Access

required for these pads, particularly the 23-15 and 6-14 locations, involve substantive extensions into previously unroaded habitats and offer access into terrain that is predisposed to further unauthorized trail development (e.g., benches and burns). As a means of reducing long-term impacts to the utility of local deer and elk winter ranges and meeting road density objectives established in the White River ROD/RMP (i.e., road densities of 3 miles/square mile on big game ranges, White River ROD/RMP, page 2-29), it is recommended that general public access to the 23-15 and 6-14 locations be restricted by effectively gating access to these locations.

Environmental Consequences of the No Action Alternative: No immediate action would be authorized that would involve the adverse modification of terrestrial wildlife habitats.

Mitigation: It is recommended that vehicular use on roads accessing the 6-14 and 23-15 locations be restricted by installing lockable gates at locations that would effectively deter bypass. If negotiation is possible between KGH and Bayless, the gate associated with the 23-15 should be located as close as possible to the main Gilsonite Hills ridge road (east of the KGH 26-1 location). If agreement between the two entities cannot be achieved, the gate should be located west of the KGH 26-1 at the top of the sideslope descending to the 23-15 location. Similarly, the gate associated with the 6-14 should be located in the first residual pinyon-juniper stand off the Rabbit Mountain road where adjacent terrain would deter bypass. It is intended that access would remain effectively restricted throughout the year and available only to authorized use associated with natural gas development and BLM administration.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): The project area presently meets the public land health standards for terrestrial animal communities. As conditioned, the proposed action would have negligible long term influence on the utility or function of big game, raptor, or non-game habitats surrounding these wells. In an overall context, lands affected by the no-action or proposed action would continue to meet the land health standard for terrestrial animals.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation			X
Cadastral Survey	X		
Fire Management			X
Forest Management			X
Geology and Minerals			X
Hydrology/Water Rights		X	
Law Enforcement		X	
Noise			
Paleontology			X
Rangeland Management		X	

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Realty Authorizations			X
Recreation			X
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

ACCESS AND TRANSPORTATION

Affected Environment: The proposed action occurs within an area designated as open seasonally. The area is closed to off road cross-country travel from October 1 through April 30 of each year. Rio Blanco County road 114 is the main access route to proposed actions.

Environmental Consequences of the Proposed Action: No impacts are anticipated.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

FIRE MANAGEMENT

Affected Environment: All the wells proposed with the exception of the 6-14 fall within the pinion-juniper vegetation association totaling approximately 8 acres of disturbance in the PJ. Due to the existing tree cover of pinion and juniper, there will be a need for the operator to clear some of these trees. If not adequately treated, these trees will result in elevated hazardous fuels conditions and remain on-site for many years. These accumulations of dead material are very receptive to fire brands and spotting from wind driven fires and can greatly accelerate the rate of spread of the fire front. The road(s) associated with this project may be used by the general public for a variety of uses, including access for fire wood gathering, hunting and other dispersed recreational activities. Increased public use of an area will nearly always result in an increased potential for man-caused wildland fires.

The National Fire Plan calls for "firefighter and public safety" to be the highest priority for all fire management activities. In the pinion, juniper, and brush types common on the White River Resource Area, roads and other man-made openings are commonly used as fuel breaks or barriers to control the spread of both wildland and prescribed fires. By reducing the activity fuels created from this proposal, future fire management efforts in this area should be safer for those involved and more effective.

Environmental Consequences of the Proposed Action: There will be approximately 8 acres of road and well pad construction requiring the removal of pinion/juniper fuel type with the Weaver Ridge 13-9, Weaver Ridge 23-15, and Weaver Ridge 27-9 / 27-16 well sites. If not treated the slash and woody debris will create an elevated hazardous dead fuel loading which

could pose significant control problems in the event of a wildfire. Additionally there would be greater threat to public, Bayless personnel/contractors, and fire suppression personnel. The Hells Hole 6-14 location proposed by this action is located in a burn scar and therefore will not create the dead fuel accumulation anticipated by the other wells proposed.

Environmental Consequences of the No Action Alternative: There would be no tree removal or disturbance which would cause significant dead fuel loading.

Mitigation: Several options may be considered for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively break down the woody fuel and scatter the debris thereby eliminating any hazardous fuel load adjacent to the new road and well pad.

The other option would be to cut trees and have them removed for firewood, posts, or other products (See Forest Management). The branches and tops should be lopped and broadly scattered to a depth of 24 inches or less. If the products are left for collection by the general public, they should be piled along the road side or pad to facilitate removal.

FOREST MANAGEMENT

Affected Environment: The project area is primarily a pinyon/juniper type. The 23-15 well is contains primarily old growth pinyon/juniper with approximately an even mix of species. The 27-9 and 27-16 are also within an old growth pinyon /juniper association with the dominant species being Utah juniper. The 6-14 will is within a burned pinyon/juniper stand which was reseeded with primarily non-native species in the early 1980s. The non-native species are still present and Indian ricegrass has invaded the area and is common. The 13-9 well has the access road within the pinyon/juniper association that is dominated by old growth Utah juniper, with the access road on a hillside bunchgrass vegetation site.

Environmental Consequences of the Proposed Action: The permit holder will be required to purchase the trees prior to The juniper woodland would establish cover suitable for soil retention within 3-5 years and initial establishment of junipers in 15-20 years. Development of a late seral community would take 150-200 years.

Environmental Consequences of the No Action Alternative: There would be no impacts.

Mitigation: White River ROD/RMP of 1997, Appendix B; COA #7: All trees removed in the process of construction shall be purchased from the Bureau of Land Management. The trees shall be cut with a maximum stump height of six inches and disposed of by one of the following methods:

a. Trees must be cut before being dozed off the area of disturbance. Trees shall be cut into four-foot lengths, down to four inches in diameter and placed along the edge of the disturbance.

b. Purchased trees may be removed from federal land for resale or private use. Limbs may be scattered off the area of disturbance but not dozed off.

c. Chipped and scattered.

GEOLOGY AND MINERALS

Affected Environment: The surface geologic formation of the 13-9, 23-15, 27-9, and 27-16 proposed wells is Green River. The targeted zone for these wells is in the Mancos. These wells are located on federal oil and gas leases COC-58704and COC-58705. Well 6-14 surface geology is Green River and the targeted zone is in the Morrison formation. It is located on federal oil and gas lease COC-66378. During drilling potential water, coal, oil and gas zones will be encountered from surface to the targeted zone.

Environmental Consequences of the Proposed Action: The cementing procedure for wells 13-9, 23-15, 27-9, and 27-16 isolates the formations and will prevent the migration of gas, water, and oil between formations. Coal zones located in the Mesaverde will also be isolated during this procedure. However well 6-14 proposed cementing procedure does not cover approximately 1,800 feet of the Frontier and Niobrara formations and may allow the migration of gas and water between these formations. Development of these wells will deplete the hydrocarbon resources in the targeted formation

Environmental Consequences of the No Action Alternative: The oil and gas resources of the targeted zones would not be fully developed.

Mitigation: Cementing procedures for well 6-14 should allow coverage of the Frontier and Niobrara formations.

PALEONTOLOGY

Affected Environment: Hells Hole 6-14 well pad and access road; Weaver Ridge 13-9 well pad and access road; Weaver Ridge 27-9 well pad and access road; and Weaver Ridge 27-16 well pad and access road appear to be in the area generally mapped as the Douglas Creek member of the Green River Formation (Tweto 1979), which the BLM has classified as a Condition III formation meaning that the fossil bearing potential of the formation is not well understood in this area.

Weaver Ridge 23-15 Well pad and access road: the proposed well pad and access road appear to be located in an area mapped as the Parachute Creek member of the Green River formation

(Tweto 1979), which the BLM has classified as a Condition I formation meaning it is known to produce scientifically important fossil resources.

Environmental Consequences of the Proposed Action: Hells Hole 6-14 well pad and access road; Weaver Ridge 13-9 well pad and access road; Weaver Ridge 27-9 well pad and access road; and Weaver Ridge 27-16 well pad and access road if it becomes necessary to excavate into the underlying rock formation to construct the road, level the well pad or excavate the reserve/Blooie pit there is an unknown potential to impact scientifically important fossil resources.

Weaver Ridge 23-15 well pad and access road: if it becomes necessary to excavate into the underlying rock formation to construct the access road, level the well pad or excavate the reserve/blooie pit there is a fairly high potential to impact scientifically important fossil resources.

Environmental Consequences of the No Action Alternative: There would be no new impacts to cultural resources under the No Action Alternative.

Mitigation: For all wells and access roads: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. A monitor shall be present prior to and during all excavation into the underlying rock formation to construct the access roads, level the well pads and/or excavate all reserve/blooie pits.

REALTY AUTHORIZATIONS

Affected Environment: Access to each well will involve existing ROWs held by Bayless, County Roads, and new road/ROW as depicted in the following table. Existing lineal ROWs that will be crossed by, or are adjacent to, the proposed routes are also shown.

NAME AND #	EXISTING ACCESS OR PUBLIC ROAD	NEW ACCESS	ROWS CROSSED OR ADJACENT
Weaver Ridge 13-9	RBC Rd 2	Cottonwood Creek and segment of new road to the pad	54656, 57516, 58105, 58307, 58534, 64597, 66797
Hell's Hole 6-16	RBC Rd 114.	new road on rehabbed route	34334, 40603,50050
Weaver Ridge 23-15	COC68238	new road past the KGH 24-7	66620,63986
Weaver Ridge 27-9 and 27-16	COC68238	BLM Rd	0123685, 37771, 49128, 52705, 63986, 66620

Environmental Consequences of the Proposed Action: The access along existing roads and new construction will be authorized under an amendment to COC68238 for the wells on Gilsonite Ridge and COC68888 for the Cottonwood access.

Environmental Consequences of the No Action Alternative: The wells would not be drilled, no access required, and there would be no additional consequences.

Mitigation: Colorado One Call procedure must be activated before any earthmoving activities take place.

RECREATION

Affected Environment: The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project area most resembles a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM physical and social recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

Environmental Consequences of the Proposed Action: The public will lose approximately 8 acres of dispersed recreation potential while wells are in operation. The public will most likely not recreate in the vicinity of these facilities and will be dispersed elsewhere. If action coincides with hunting seasons (September through November) it will most likely disrupt the experience sought by those recreationists.

With the introduction of new well pads and roads, an increase of traffic could be expected increasing the likihood of human interactions, the sights and sounds associated with the human environment and a less naturally appearing environment.

Environmental Consequences of the No Action Alternative: No loss of dispersed recreation potential and no impact to hunting recreationists.

Mitigation: None.

VISUAL RESOURCES

Affected Environment: The proposed actions are located in an area with a VRM II classification. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Environmental Consequences of the Proposed Action: The proposed actions are located on benches and slopes below ridge tops and within stands of woody vegetation comprised mostly of Pinyon/Juniper. There are no major routes of travel in the area that would be frequented by a casual observer. Dirt roads in the area are utilized primarily for activity associated with energy development and seasonally by big game hunters in the fall. By utilizing low profile production facilities and painting all production equipment Juniper Green to mimic the surrounding and adjacent vegetation, a casual observer could see the change to the character of the landscape, but the change should not attract his/her attention. The level of change to the characteristic landscape should be low, and the standards of the VRM II classification would be retained.

Environmental Consequences of the No Action Alternative: There would be no impacts.

Mitigation: All above ground facilities shall be low profile and painted Juniper Green, as stated in the APD, to blend with the surrounding environment.

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from oil and gas development were analyzed in the White River Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) completed in June 1996. Current development, including the proposed action, has not exceeded the cumulative impacts from the foreseeable development analyzed in the PRMP/FEIS.

REFERENCES CITED:

Conner, Carl E. and Barbara J. Davenport
2005 Class III Cultural Resource Inventory Report for Four Proposed Federal Well Locations and Related Access Roads in the Weaver Ridge Area of Rio Blanco County, Colorado for Robert L. Bayless, Producer LLC. Grand River Institute, Grand Junction, Colorado.

Tweto, Ogden
1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

PERSONS / AGENCIES CONSULTED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Nate Dieterich	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Robert Fowler	Forester	Invasive, Non-Native Species
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Ed Hollowed	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Nate Dieterich	Hydrologist	Soils
Robert Fowler	Forester	Vegetation
Ed Hollowed	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Forester	Rangeland Management
Linda Jones	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE: It is my decision to approve development of the wells and access roads as described in the proposed action, with mitigation measures listed below. This development, with mitigation, is consistent with the decisions in the White River ROD/RMP, and environmental impacts will be minimal.

MITIGATION MEASURES:

1. The operator will be responsible for complying with all local, state, and federal air quality regulations and provide documentation to the BLM that they have done so.

2. Revegetate surfaces disturbed during construction. Stockpiled soils must be covered and adequate ground cover must be applied (e.g. woody debris) to minimize surface exposure to eolian processes.

3. Dust abatement (spreading water) will be required during dry periods.

4. Hells Hole well 6-14 and access road: **Site 5RB 1390 must be avoided**. All new construction must remain within previous disturbance. Construction outside of previous disturbance must be monitored in the vicinity of the site.

5. For all wells and access roads: The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be

used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

6. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

7. In accordance with Condition of Approval #179 from Appendix B of the White River ROD/RMP, application of herbicides must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

8. It will be the responsibility of the operator to eliminate migratory bird access to reserve pits that store or are expected to store fluids that pose a risk to these birds (e.g., waterfowl, wading birds, raptors, and songbirds) during drilling and completion activities and until such pits are reclaimed. Exclusion methods may include netting, the use of "bird-balls", or other alternative methods that effectively eliminate migratory bird access to pit contents and meet BLM-approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to eliminate migratory bird use two weeks prior to when drilling activities are expected to begin. The BLM approved method will be applied within 24 hours after drilling activities have begun. All lethal and non-lethal events that involve migratory birds will be reported to a White River Field Office Petroleum Engineer Technician immediately.

9. The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

10. The operator will be responsible for complying with all local, state, and federal water quality regulations as well as provide documentation to the BLM that they have done so. Furthermore, "Gold Book" surface operating standards for oil and gas exploration and development must be implemented in construction of well pads and access roads.

11. To mitigate surface erosion due to removal of ground cover at the well pad, it is recommended stockpiled soils be covered and silt fences be used on down gradient sides. It is also recommended that upon reclamation flow deflectors and sediment traps (woody debris) be redistributed over the area along with Native Seed Mix #5.

12. To mitigate contamination of local ground water, environmentally unfriendly substances (e.g. diesel) must not be allowed to contact soils. The use of impermeable matting under equipment is suggested to intercept such contaminants prior to contacting soils. Furthermore, all pits must be lined and all wastes associated with construction and drilling will be properly treated and disposed of. Finally, aquifers beneficial for human consumption and livestock encountered during the drilling process must be properly sealed to reduce potential for contamination.

13. All road construction must strictly adhere to "Gold Book" surface operating standards for oil and gas exploration and development. Access roads will be designed to provide adequate cut-slope grade, and drains as needed to control surface runoff and keep soil losses to a minimum.

14. To mitigate surface erosion due to removal of ground cover on well pads and access roads, stockpiled soils shall be covered and silt fences will be used on down gradient sides. Upon reclamation flow deflectors and sediment traps (woody debris) must be redistributed over the area along with Native Seed Mix #5.

Native Seed Mix #5		
Species (Variety)	Lbs. PLS per Acre	Ecological Sites
Basin Wildrye (Magnar) Western wheatgrass (Rosanna, Arriba) Bluebunch wheatgrass (Secar) Thickspike wheatgrass (Critana) Fourwing saltbush (Wytana) Alternates: Utah sweetvetch, globemallow	2 3 1 2 1	Foothill Swale, Sandy Swale, Swale Meadow

15. Heavy truck traffic must be eliminated during wet periods to reduce deterioration of the roadways and prevent rut development. Seasonal restrictions for heavy truck traffic must be implemented and enforced.

16. Complete reclamation will follow abandonment of well pads. Access roads and well pads will be recontoured and 100% of disturbed surfaces will be revegetated with Native Seed Mix #5.

17. It is recommended that vehicular use on roads accessing the 6-14 and 23-15 locations be restricted by installing lockable gates at locations that would effectively deter bypass. If negotiation is possible between KGH and Bayless, the gate associated with the 23-15 should be located as close as possible to the main Gilsonite Hills ridge road (east of the KGH 26-1 location). If agreement between the two entities cannot be achieved, the gate should be located west of the KGH 26-1 at the top of the sideslope descending to the 23-15 location. Similarly, the gate associated with the 6-14 should be located in the first residual pinyon-juniper stand off the Rabbit Mountain road where adjacent terrain would deter bypass. It is intended that access would remain effectively restricted throughout the year and available only to authorized use associated with natural gas development and BLM administration.

18. Several options may be considered for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuel and scatters the debris thereby eliminating any hazardous fuel load adjacent to the new road and well pad.

The other option would be to cut trees and have them removed for firewood, posts, or other products (See Forest Management). The branches and tops should be lopped and broadly scattered to a depth of 24 inches or less. If the products are left for collection by the general public, they should be piled along the road side or pad to facilitate removal.

19. White River ROD/RMP of 1997, Appendix B; COA #7: All trees removed in the process of construction shall be purchased from the Bureau of Land Management. The trees shall be cut with a maximum stump height of six inches and disposed of by one of the following methods:

a. Trees must be cut before being dozed off the area of disturbance. Trees shall be cut into four-foot lengths, down to four inches in diameter and placed along the edge of the disturbance.

b. Purchased trees may be removed from federal land for resale or private use. Limbs may be scattered off the area of disturbance but not dozed off.

c. Chipped and scattered.

20. Cementing procedures for well 6-14 should allow coverage of the Frontier and Niobrara formations.

21. For all wells and access roads: The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has

been completed, the operator will then be allowed to resume construction.

22. A monitor shall be present prior to and during all excavation into the underlying rock formation to construct the access roads, level the well pads and/or excavate all reserve/blooie pits.

23. Colorado One Call procedure must be activated before any earthmoving activities take place.

24. All above ground facilities shall be low profile and painted Juniper Green, as stated in the APD, to blend with the surrounding environment.

NAME OF PREPARER: Tamara Meagley

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: Kent C. Walter
Field Manager

DATE SIGNED: 06/17/05

ATTACHMENTS: Location map of the proposed action

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Location of Proposed Action
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